

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

New Claims 6-8 are supported by Claims 1-3 and specification page 7, line 26 - page 8, line 8. No new matter has been entered.

In the outstanding Office Action, the abstract of the disclosure was objected to on the basis that (1) it contains more than a single paragraph, and (2) it mentions Fig. 2 without any description as to its relevance to the abstract. In response, the abstract is amended to contain a single paragraph, and to delete reference to Fig. 2. Accordingly, Applicants respectfully request withdrawal of the objection to the abstract of the disclosure.

In the outstanding Office Action, Examiner made FINAL the Restriction dated June 23, 2008 and withdrew Claims 4-5 from further consideration, as being drawn to a non-elected Group. Claims 4-5 are cancelled without prejudice. Claims 1-3 are now pending in this application.

In the outstanding Office Action, Claims 1-2 were rejected under 35 U.S.C. § 102(e) as anticipated by Dubrow (US 2005/0181195 A1). At the outset, Applicants reserve the right to antedate Dubrow. Further, Applicants note that Dubrow's currently effective 102(e) date is April 27, 2004, no showing with regard to the contents of Dubrow's underlying provisional application having been made by the Office.

Applicants disclose and claim a device with a hydrophobic and/or lipophobic surface comprising a carpet of nanofibers, in which the nanofibers are totally cladded with a hydrophobic and/or lipophobic continuous film, and the surface between the nanofibers is also covered with a layer of the same polymer. Dubrow, on the other hand, discloses nanofibers surfaces that have been treated with a liquidphobic material to make the nanofibers liquidphobic. See, e.g., paragraph [0036]. These nanofibers can be attached to a

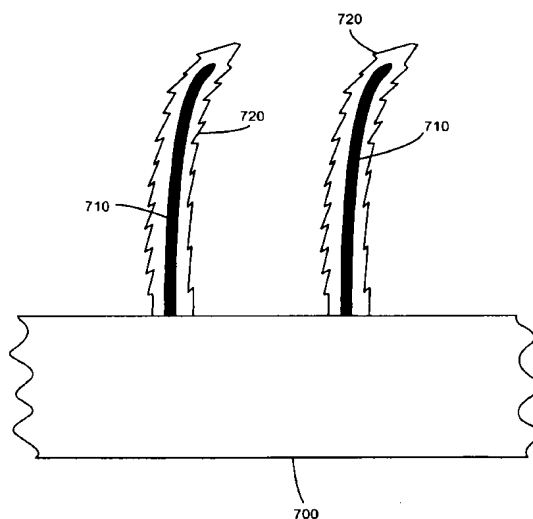
substrate and need not be entirely coated - see the last several lines of paragraph [0073]. See also paragraph [0109].

There simply is no disclosure in Dubrow that the disclosed nanofibers are totally clad with a hydrophobic and/or lipophobic continuous polymer film and that the surface between these nanofibers is covered with a layer of this same polymer. Dubrow clearly contemplates structures wherein the nanofibers are purposely not totally clad with a hydrophobic and/or lipophobic continuous polymer film (see above) and uses a simple immersion technique in its Example (paragraph [0136]). As described quite clearly at page 2 of Applicants' present specification and in Figure 1 herein, such immersion does *not* produce a structure as claimed wherein 1.) nanofibers are totally clad with a continuous polymer film and 2.) the surface between these nanofibers is covered with a layer of this same polymer. Instead, and as explained in Applicants' present specification, such immersion provides no continuity of treatment over the whole surface of the nanofiber and over the surface between nanofibers.

In order to anticipate, a single reference must disclose each and every element of the claimed invention. *Crown Operations Int'l, Ltd. v. Solutia Inc.*, 289 F.3d 1367, 1375 (Fed. Cir. 2002). Because Dubrow fails to disclose completely covering both the nanofibers and the surface between the nanofibers with the hydrophobic and/or lipophobic film, Dubrow cannot anticipate Claims 1-2.

The Office has taken the position that since in Dubrow "the structure possesses the coating's given property," it "requires the surface between the nanofibers to also be covered with the coating in order for the entire article to possess the desired property (i.e. superhydrophobicity)." This is incorrect. As shown above, Dubrow's structures do not require that the surfaces between the nanofibers be covered with hydrophobic material. For example, Dubrow's exemplary Fig. 7 shows the nanofibers (710) covered with liquidphobic

material (720), and the substrate surface (700) between the nanofibers not covered with any liquidphobic material (720):



See paragraph [0069] of the reference.

In addition, paragraph [0069] of Dubrow, which discloses the embodiments of the invention, considers only the possibility of varying the degree of coating on the nanofibers, *i.e.*, coating either the entire nanofiber or the tip of the nanofiber, but does not disclose coating the surfaces between the nanofibers with hydrophobic material. As such, it is incorrect to infer that both the nanofibers and the surface between the nanofibers must be covered in order for Dubrow's structure to possess the desired hydrophobicity. Because Dubrow fails to disclose covering the surface between the nanofibers with a hydrophobic and/or lipophobic film, Dubrow cannot anticipate Claim 1, or any claim depending from Claim 1. Accordingly, Applicants respectfully request withdrawal of the § 102(e) rejections of Claims 1-2.

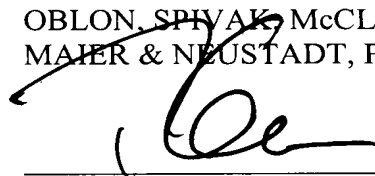
In the outstanding Office Action, Claim 2 was also rejected under 35 U.S.C. § 103(a) as being unpatentable over Dubrow (US 2005/0181195 A1). It may be the case that the Examiner meant to reject Claim 3 under 35 U.S.C. § 103(a), as this claim was not included in the anticipation rejection. However, because the reference fails to teach or suggest the subject

matter of Claim 1, it cannot teach or suggest the subject matter of dependent Claim 2 or 3. As noted above, there is no basis for Examiner's statement that Dubrow discloses articles that meet the continuous coating requirements of Claim 1, and there is no basis for Examiner's inference that the surface between the nanofibers must be covered to form an entirely hydrophobic article. Dubrow neither teaches nor suggests covering the surface between the nanofibers with a hydrophobic and/or lipophobic film. To the contrary, as stated above, the Figures and the specification of Dubrow disclose covering only the nanofibers with hydrophobic material, and not the surface between the nanofibers. The rejection should be withdrawn.

In light of the above discussion, the present application is believed to be in condition for allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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